- (a) A smooth top table at least three feet wide by 40 feet long.
- (b) Suitable housing that is adequately heated, lighted, and ventilated for drying and airing parachutes.
- (c) Enough packing tools and other equipment to pack and maintain the types of parachutes that he services.
- (d) Adequate housing facilities to perform his duties and to protect his tools and equipment.

[Doc. No. 1179, 27 FR 7973, Aug. 10, 1962, as amended by Amdt. 65-27, 47 FR 13316, Mar. 29.

#### §65.129 Performance standards.

No certificated parachute rigger mav-

- (a) Pack, maintain, or alter any parachute unless he is rated for that type;
- (b) Pack a parachute that is not safe for emergency use;
- (c) Pack a parachute that has not been thoroughly dried and aired;
- (d) Alter a parachute in a manner that is not specifically authorized by the Administrator or the manufacturer;
- (e) Pack, maintain, or alter a parachute in any manner that deviates from procedures approved by the Administrator or the manufacturer of the parachute; or
- (f) Exercise the privileges of his certificate and type rating unless he understands the current manufacturer's instructions for the operation involved and has-
- (1) Performed duties under his certificate for at least 90 days within the preceding 12 months; or
- (2) Shown the Administrator that he is able to perform those duties.

## § 65.131 Records.

- (a) Each certificated parachute rigger shall keep a record of the packing, maintenance, and alteration of parachutes performed or supervised by him. He shall keep in that record, with respect to each parachute worked on, a statement of-
  - (1) Its type and make:
  - (2) Its serial number;
- (3) The name and address of its owner:
- (4) The kind and extent of the work performed;

- (5) The date when and place where the work was performed; and
- (6) The results of any drop tests made with it.
- (b) Each person who makes a record under paragraph (a) of this section shall keep it for at least 2 years after the date it is made.
- (c) Each certificated parachute rigger who packs a parachute shall write, on the parachute packing record attached to the parachute, the date and place of the packing and a notation of any defects he finds on inspection. He shall sign that record with his name and the number of his certificate.

## §65.133 Seal.

Each certificated parachute rigger must have a seal with an identifying mark prescribed by the Administrator, and a seal press. After packing a parachute he shall seal the pack with his seal in accordance with the manufacturer's recommendation for that type of parachute.

### APPENDIX A TO PART 65—AIRCRAFT DISPATCHER COURSES

# Overview

This appendix sets forth the areas of knowledge necessary to perform dispatcher functions. The items listed below indicate the minimum set of topics that must be covered in a training course for aircraft dispatcher certification. The order of coverage is at the discretion of the approved school. For the latest technological advancements refer to the Practical Test Standards as published by the FAA.

- I. Regulations
  - A. Subpart C of this part;
  - B. Parts 1, 25, 61, 71, 91, 121, 139, and 175, of this chapter:
  - C. 49 CFR part 830;
- D. General Operating Manual.
- II. Meteorology
  - A. Basic Weather Studies
  - (1) The earth's motion and its effects on weather.
- (2) Analysis of the following regional weather types, characteristics, structures, or combinations thereof:
- (a) Maritime.
- (b) Continental.
- (c) Polar
- (d) Tropical.
- (3) Analysis of the following local weather types, characteristics, and structures or combinations thereof:
- (a) Coastal.
- (b) Mountainous.

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- (c) Island.
- (d) Plains.
- (4) The following characteristics of the atmosphere:
- (a) Layers.
- (b) Composition.
- (c) Global Wind Patterns.
- (d) Ozone.
- (5) Pressure:
- (a) Units of Measure.
- (b) Weather Systems Characteristics.
- (c) Temperature Effects on Pressure.
- (d) Altimeters.
- (e) Pressure Gradient Force.
- (f) Pressure Pattern Flying Weather.
- (6) Wind:
- (a) Major Wind Systems and Coriolis Force.
- (b) Jetstreams and their Characteristics.
- (c) Local Wind and Related Terms.
- (7) States of Matter:
- (a) Solids, Liquid, and Gases.
- (b) Causes of change of state.
- (8) Clouds:
- (a) Composition, Formation, and Dissipa-
- (b) Types and Associated Precipitation.
- (c) Use of Cloud Knowledge in Forecasting.
- (9) Fog:
- (a) Causes, Formation, and Dissipation.
- (b) Types.
- (10) Ice:
- (a) Causes, Formation, and Dissipation.
- (b) Types
- (11) Stability/Instability:
- (a) Temperature Lapse Rate, Convection.
- (b) Adiabatic Processes.
- (c) Lifting Processes.
- (d) Divergence.
- (e) Convergence.
- (12) Turbulence:
- (a) Jetstream Associated.
- (b) Pressure Pattern Recognition.
- (c) Low Level Windshear.
- (d) Mountain Waves.
- (e) Thunderstorms.
- (f) Clear Air Turbulence.
- (13) Airmasses:
- (a) Classification and Characteristics.
- (b) Source Regions.
- (c) Use of Airmass Knowledge in Forecasting.
- (14) Fronts:
- (a) Structure and Characteristics, Both Vertical and Horizontal.
- (b) Frontal Types.
- (c) Frontal Weather Flying.
- (15) Theory of Storm Systems:
- (a) Thunderstorms.
- (b) Tornadoes.
- (c) Hurricanes and Typhoons.
- (d) Microbursts.
- (e) Causes, Formation, and Dissipation.
- B. Weather, Analysis, and Forecasts
- (1) Observations:
- (a) Surface Observations.

- (i) Observations made by certified weather observer.
- (ii) Automated Weather Observations.
- (b) Terminal Forecasts.
- (c) Significant En route Reports and Forecasts.
- (i) Pilot Reports.
- (ii) Area Forecasts.
- (iii) Sigmets, Airmets.
- (iv) Center Weather Advisories.
- (d) Weather Imagery.
- (i) Surface Analysis.
- (ii) Weather Depiction.
- (iii) Significant Weather Prognosis.
- (iv) Winds and Temperature Aloft.
- (v) Tropopause Chart.
- (vi) Composite Moisture Stability Chart.
- (vii) Surface Weather Prognostic Chart.
- (viii) Radar Meteorology.
- (ix) Satellite Meteorology
- (x) Other charts as applicable.
- (e) Meteorological Information Data Collection Systems.
- (2) Data Collection, Analysis, and Forecast Facilities.
- (3) Service Outlets Providing Aviation Weather Products.
- C. Weather Related Aircraft Hazards
- (1) Crosswinds and Gusts.
- (2) Contaminated Runways.
- (3) Restrictions to Surface Visibility. (4) Turbulence and Windshear.
- (5) Icing.
- (6) Thunderstorms and Microburst.
- (7) Volcanic Ash.
- III. Navigation
  - A. Study of the Earth
  - (1) Time reference and location (0 Longitude, UTC).
  - (2) Definitions.
  - (3) Projections.
  - (4) Charts.
  - B. Chart Reading, Application, and Use.
  - C. National Airspace Plan.
- D. Navigation Systems.
- E. Airborne Navigation Instruments.
- F. Instrument Approach Procedures.
- (1) Transition Procedures.
- (2) Precision Approach Procedures.
- (3) Non-precision Approach Procedures.
- (4) Minimums and the relationship to weather.
- G. Special Navigation and Operations.
- (1) North Atlantic.
- (2) Pacific.
- (3) Global Differences.
- IV. AIRCRAFT
  - A. Aircraft Flight Manual.
- B. Systems Overview.
- (1) Flight controls. (2) Hydraulies.
- (3) Electrical.
- (4) Air Conditioning and Pressurization.
- (5) Ice and Rain protection.
- (6) Avionics, Communication, and Navigation.

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- (7) Powerplants and Auxiliary Power Units.
- (8) Emergency and Abnormal Procedures.
- (9) Fuel Systems and Sources.
- C. Minimum Equipment List/Configuration Deviation List (MEL/CDL) and Applications.
- D. Performance.
- (1) Aircraft in general.
- (2) Principles of flight:
- (a) Group one aircraft.
- (b) Group two aircraft.
- (3) Aircraft Limitations.
- (4) Weight and Balance.
- (5) Flight instrument errors.
- (6) Aircraft performance:
- (a) Take-off performance.
- (b) En route performance.
- (c) Landing performance.
- V. Communications
- A. Regulatory requirements.
- B. Communication Protocol.
- C. Voice and Data Communications.
- D. Notice to Airmen (NOTAMS).
- E. Aeronautical Publications.
- F. Abnormal Procedures.
- VI. Air Traffic Control
- A. Responsibilities.
- B. Facilities and Equipment.
- C. Airspace classification and route structure.
- D. Flight Plans.
- (1) Domestic.
- (2) International.
- E. Separation Minimums.
- F. Priority Handling. G. Holding Procedures.
- H. Traffic Management.
- VII. Emergency and Abnormal Procedures
- A. Security measures on the ground.
- B. Security measures in the air.
- C. FAA responsibility and services.
- D. Collection and dissemination of information on overdue or missing aircraft.
- E. Means of declaring an emergency.
- F. Responsibility for declaring an emergency.
- G. Required reporting of an emergency.
- H. NTSB reporting requirements.
- VIII. Practical Dispatch Applications
- A. Human Factors.
- (1) Decisionmaking:
- (a) Situation Assessment.
- (b) Generation and Evaluation of Alternatives.
- (i) Tradeoffs and Prioritization.
- (ii) Contingency Planning.
- (c) Support Tools and Technologies.
- (2) Human Error:
- (a) Causes.
- (i) Individual and Organizational Factors.
- (ii) Technology-Induced Error.
- (b) Prevention.
- (c) Detection and Recovery.
- (3) Teamwork:
- (a) Communication and Information Exchange.

- (b) Cooperative and Distributed Problem-Solving.
- (c) Resource Management.
- (i) Air Traffic Control (ATC) activities and workload.
- (ii) Flightcrew activities and workload.
- (iii) Maintenance activities and workload.
- (iv) Operations Control Staff activities and workload.
- B. Applied Dispatching.
- (1) Briefing techniques, Dispatcher, Pilot.
- (2) Preflight:
- (a) Safety.
- (b) Weather Analysis.
- (i) Satellite imagery.
- (ii) Upper and lower altitude charts.
- (iii) Significant en route reports and forecasts.
- (iv) Surface charts.
- (v) Surface observations.
- (vi) Terminal forecasts and orientation to Enhanced Weather Information System (EWINS)
- (c) NOTAMS and airport conditions.
- (d) Crew.
- (i) Qualifications.
- (ii) Limitations.
- (e) Aircraft.
- (i) Systems.
- (ii) Navigation instruments and avionics systems.
- (iii) Flight instruments.
- (iv) Operations manuals and MEL/CDL.
- (v) Performance and limitations.
- (f) Flight Planning.
- (i) Route of flight.
- 1. Standard Instrument Departures and Standard Terminal Arrival Routes.
- 2. En route charts.
- 3. Operational altitude.
- 4. Departure and arrival charts.
- (ii) Minimum departure fuel.
- 1. Climb.
- 2. Cruise.
- 3. Descent.
- (g) Weight and balance.
- (h) Economics of flight overview (Performance, Fuel Tankering).
- (i) Decision to operate the flight.
- (j) ATC flight plan filing.
- (k) Flight documentation.
- (i) Flight plan.
- (ii) Dispatch release.
- (3) Authorize flight departure with concurrence of pilot in command.
- (4) In-flight operational control:
- (a) Current situational awareness.
- (b) Information exchange.
- (c) Amend original flight release as required.
- (5) Post-Flight:
- (a) Arrival verification.
- (b) Weather debrief.
- (c) Flight irregularity reports as required.
- [Doc. No. FAA-1998-4553, 64 FR 68925, Dec. 8, 19991